

SHORT COMMUNICATIONS

J. Raptor Res. 25(4):136-139

© 1991 The Raptor Research Foundation, Inc.

INJURY TO A MERLIN (*Falco columbarius*) FROM DISCARDED FISHING TACKLE

JIMMIE R. PARRISH

Department of Zoology, Brigham Young University, Provo, UT 84602¹

BRIAN A. MAURER

Department of Zoology, Brigham Young University, Provo, UT 84602

Commercial and recreational fishing activities have been reported to cause fatalities in raptors (Knight et al. 1980, Meyers 1989, Watson 1989), as well as other species (Tarshis 1971, Trapp 1973, Schreiber 1975, Bartel 1984, Coe 1986 in NOAA 1988, Atkins and Henemann 1987, NOAA 1988, Croxall and Prince 1990), even to the extent of being implicated as the primary cause in some avian population declines (Weimerskirch and Jouventin 1987). Monofilament fishing line has been used to control bird predation near fish hatcheries (Ostergaard 1981), but of particular concern is the entanglement of birds in discarded monofilament fishing line (Tarshis 1971, Trapp 1973, NOAA 1988). Entanglement is probably common near lakes and reservoirs that support resident waterfowl populations and are used regularly for recreational fishing (W. Harris, pers. comm.). Typically, wings and/or feet of birds become entangled or wrapped with discarded monofilament line preventing escape and ultimately result in death from exhaustion or starvation (Tarshis 1971, Knight et al. 1980, Meyers 1989). We report an incident of a Merlin (*Falco columbarius*) found impaled on a fish hook attached to discarded monofilament fishing line.

On 16 September 1988, approximately 2 km south of Utah Lake State Park, Utah, a female Merlin was discovered hanging approximately 7 m above the ground from the end of a branch of a dead cottonwood (*Populus* sp.) tree. Shortly thereafter, the bird fell to the ground ex-

hausted and did not struggle when picked up. There was 97 cm of fishing line still attached to a size 6 fishing hook that was imbedded in the bird's left wing near the radius and ulna (Fig. 1). A small lead weight was located 48 cm from the end of the line. Several meters of line remained on the branch from which the Merlin fell. Apparently, the bird was perched on the branch and became impaled when attempting to take flight.

A great deal of blood was present on left wing and body feathers. Some additional bleeding occurred when the hook was moved. An X-ray revealed that the hook had torn a portion of both the *extensor metacarpi radialis* and *pronator superficialis* muscles (Redig and Duke 1980) of the left wing (Fig. 2). Presumably, branches of the brachial artery and vein had been severed.

The hook was removed by Merrill Shupe, a veterinarian in the College of Biology and Agriculture at Brigham Young University. Afterward, the Merlin was transferred to a local falconer for rehabilitation. On 17 September the bird weighed 168 g, which is below average (e.g., 190-225 g; K. Tuttle, pers. comm.) for winter resident female Merlins in Utah. A topical antibiotic was applied because the wing injuries became swollen and bruised. On 19 September an infection was apparent, and 25 mg of cephalexin hydrochloride was administered orally twice daily for 7 d.

By 26 September the Merlin appeared stronger and displayed good movement in the injured left wing. Administration of oral antibiotic was discontinued. By 3 October, the Merlin weighed 175 g and injuries appeared to have healed. However, the bird held the injured wing away from the body when perched.

¹ Present address: 1065 E. Canyon Road, Avon, Utah 84328.

→
Figure 1. Top: General condition of injury to a Merlin by discarded fishing line. Note matting of feathers from considerable blood loss. Note also length of the fishing line. Bottom: Hook location in the left wing. The point of the hook (arrow) appeared to be imbedded in muscle.





Figure 2. X-ray of the left wing of a Merlin due to imbedding of a fish hook in muscle. A tear in the muscle tissue (arrow) indicates the path that the point of the hook traveled after breaking through the skin.

A daily exercise program utilizing traditional falconry techniques (see Beebe 1984) was begun. On 1 November the Merlin was released to hunt and made 6 unsuccessful hunting attempts within 1 hr before finally taking a small unidentified bird as prey. By 8 November, weight had increased to 185 g, and the Merlin was again released to hunt. The bird perched temporarily on a nearby power pole, and the injured wing was still held noticeably away from the body. The Merlin flew from the power pole in a southerly direction, flew out of sight and was not seen again.

No laws currently exist to protect wildlife in such instances, except for litter regulations that are seldom enforced. The State of Utah currently has no regulations governing discard of fishing tackle, which would be virtually impossible to enforce (D. Shirley, pers. comm.). The incident reported here underscores the need for regulations and public education concerning discarded fishing tackle. Agencies that manage areas used for recreational fishing that are critical for wildlife should engage in public information campaigns aimed at reducing the incidence of

needless and careless discard of fishing tackle. With help from informed and conscientious fishermen, injury and death to non-target wildlife can be reduced.

RESUMEN.—En septiembre 16, 1988, un Esmerejón (*Falco columbarius*) hembra fue descubierta, cerca del Utah Lake State Park, Utah County, Utah, a 7 metros de altura, colgada en un hilo de pescar de un árbol seco de álamo (*Populus* sp.). Un gancho de pescar, tamaño 6, conectado al hilo estaba incrustado en el ala izquierda del ave, cerca del radio y cúbito. Aparentemente el ave estaba posada en la rama y resultó cogida cuando intentaba volar. Una radiografía de la zona lesionada reveló que el gancho había desgarrado una parte de los músculos del ala (extensor metacarpi radialis y pronotor superficialis). Había sangrado considerablemente y se supone que las ramificaciones de las arteria y vena braquiales han sido también afectadas. El gancho ha sido removido, y el ave fue transferida a un halconero local para su rehabilitación diaria usando las técnicas tradicionales de cetrería. En noviembre 8, 1988, mientras estaba siendo sometido a entrenamiento

y ejercicios por el halconero, el halcón voló en dirección sur hasta que se perdió de vista. En el presente no hay leyes que protejan la vida silvestre en tales circunstancias. El incidente reportado aquí sugiere la necesidad de regulaciones y educación pública.

[Traducción de Eudoxio Paredes-Ruiz]

ACKNOWLEDGMENTS

C. Stuart Houston and an anonymous referee provided helpful comments on an earlier version of the manuscript which are much appreciated.

LITERATURE CITED

- ATKINS, N. AND B. HENEMANN. 1987. The dangers of gill netting to seabirds. *Am. Birds* 41:1395-1403.
- BARTEL, K.E. 1984. Barn Swallow fatalities due to monofilament fish line. *N. Am. Bird Bander* 9:8.
- BEEBE, F.L. 1984. A falconry manual. Hancock House Publ., Blaine, WA.
- COE, J.M. 1986. Derelict fishing gear: disaster or nuisance? M.Sc. thesis, University of Washington, Seattle, WA.
- CROXALL, J.P. AND P.A. PRINCE. 1990. Recoveries of Wandering Albatrosses *Diomedea exulans* ringed at South Georgia 1958-1986. *Ring. and Migra.* 11:43-51.
- KNIGHT, R.L., J. SKRILETZ AND D.C. RYAN. 1980. Owl mortality and abandoned fishing line. *Raptor Res.* 14:40.
- MEYERS, J.M. 1989. Plastic causes death of Osprey (*Pandion haliaetus*). *Alabama Birdlife* 36(2):17.
- NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA). 1988. Report of the interagency task force on persistent marine debris. U.S. Dept. of Commerce Report, Washington, DC.
- OSTERGAARD, D.E. 1981. Use of monofilament fishing line as a gull control. *Prog. Fish Cult.* 43(3):134.
- REDIG, P.T. AND G.E. DUKE. 1980. Medical management of birds of prey. Dept. of Veterinary Biology, College of Veterinary Medicine, University of Minnesota, St. Paul, MN.
- SCHREIBER, R.W. 1975. Bad days for the Brown Pelican. *Natl. Geog. Mag.* 147(1):111-123.
- TARSHIS, I.B. 1971. An unusual fatality of a yearling Canada Goose. *Jack-Pine Warbler* 49:128.
- TRAPP, J.L. 1973. Mute Swans entangled in fishing line. *Jack-Pine Warbler* 51:91-92.
- WATSON, J.W. 1989. Bald Eagle dies from entanglement in fish net. *J. Raptor Res.* 23:52-53.
- WEIMERSKIRCH, H. AND P. JOUVENTIN. 1987. Population dynamics of the wandering albatross, *Diomedea exulans*, of the Crozet Islands: causes and consequences of the population decline. *Oikos* 49:315-322.

Received 18 December 1990; accepted 14 March 1991